

FEV EmissionRate FEVER

TEST SYSTEMS



The need to keep within exhaust emission limits, which are being more stringently regulated all over the world, increases the demand and complexity of the exhaust aftertreatment systems for combustion engines. The main functional elements of these systems are catalytic converters and the various types of particle filters, material compositions and designs. The effective development and application of these systems depends on the limited exhaust emission components being accurately quantified. This task is performed by the **FEVER** system for undiluted engine exhaust emissions from gasoline and diesel engines.

Not only is the entire system designed for easy maintenance (all system components are accessible from the front), but great attention has been paid to maximum flexibility when preparing the unit for its specific application. FEVER is fitted with casters to give it the flexibility and mobility that allow it to be used in different locations. The optimized gas flow provides the fastest response times for dynamic measurements. Furthermore, a specially developed ventilation system ensures that the analyzers are not subjected to any undue fluctuations in temperature. This guarantees highly accurate measurements and reproducible results. FEVER's fully modular design makes it easily adaptable to all measurement tasks in the fields of development, certification and quality assurance.

FEVER can be supplied as a system equipped with one or two exhaust measurement lines and up to ten individual analyzer channels. In addition to the systems for measuring the standard exhaust gas components THC, NO/NO_x, CO₂, CO and O₂, further analyzers can be integrated on request. The system functions are controlled by the integrated Compact PCI System (running on Windows XP). All functions can be accessed via the touch screen that is integrated into the front door panel. The media supply and the heated sampling pipes can be connected from above or from below, as required. A sample gas changeover system enables a FEVER system to be used for measuring several test stations and the changeover system can also be connected in a number of different configurations so that FEVER can perform a wide range of measurement tasks.

Further options:

- Multi-host functionality for up to four test beds
- Back-flushable sampling system for up to eight sampling points
- Analog output of the readings and calculated values
- Air-conditioned cabinet for use in extreme ambient temperatures

Our highlights - your benefits:

- Precise and dynamic measurement of exhaust gas components
- Maximum accuracy – excellent reproducibility
- Broad spectrum of applications (gasoline, diesel, alcohol-based fuels, CNG, LPG)
- Simple operation, calibration and maintenance
- Excellent accessibility and low space requirements
- Standardized interfaces make it easy to integrate into test bed environments

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Technical Data

Measurement of	CO, CO ₂ , THC, CH ₄ , NOX, NO, NO ₂ , O ₂ in undiluted exhaust gas emissions of gasoline and diesel engines
Analyzer	
CO ₁	NDIR 0 ... 50; 0 ... 5000 ppm
CO _h	NDIR 0 ... 0,5; 0 ... 10 Vol %
CO ₂	NDIR 0 ... 1; 0 ... 16 Vol%
THC	FID wet 10; 100; 1,000; 10,000 ppm C3
CH ₄	FID / cutter 10; 100 ppm C
NO _x	CLD / vacuum 0 ... 10; 0 ... 5000 ppm
O ₂	PMD 0 ... 0.5; 0 ... 25 Vol %
Media Supply	
Compressed air Burner air Zero and span gases	6 bar, H ₂ / He, depending on configuration
Operation	Touch screen External PC running Windows XP professional (optional)
Interface	AK via LAN (TCP/IP) or RS232 (optional)
Power supply	400 V / 50 Hz / 16 A
Power consumption (when fully equipped)	During warm-up: 9 kVA Operation: 2 kVA
Cabinet design	19" technology; fitted with casters for mobility
Dimensions (w x h x d)	700 x 2000 x 800 mm
Weight	max. 400 kg (fully equipped)
Color	RAL 7035 (light gray)